

December 21, 2018



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 9884  
(SIXTEENTH REVISION)

**EXPIRATION DATE: 2022-11-30**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: CAIRE Inc.  
Ball Ground, GA
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the manufacture, marking, sale and use of a non-DOT specification cylinder conforming with DOT Specification 4L except as specified herein, for the transportation in commerce of the Division 2.2 material identified in paragraph 6 below, subject to the limitations and special requirements specified herein. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of another device, or other uses not associated with transportation in commerce.
  - c. In accordance with 49 CFR 107.107(a) party status may not be granted to a manufacturing permit. These packaging may be used in accordance with 49 CFR 173.22a.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.316 in that a non-DOT specification cylinder is not authorized, except as specified herein.

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5. BASIS: This special permit is based on the application of CAIRE Inc. dated December 20, 2018 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Oxygen, refrigerated liquid ( <i>cryogenic liquid</i> )	2.2	UN1073	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packaging is a non-DOT specification insulated cylinder in conformance with the drawings and specification on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD) for Covidien models Companion C-1000, Companion T, C-500, C-550, MARK 4 WALKER, MARK 5 WALKER, MARK 6 WALKER, MARK 7 WALKER, MARK T WALKER, EMT PORTABLE, C-10, H-300, or H-850 liquid oxygen transport system. Additionally, the insulated cylinder conforms with the DOT 4L Specification (§§ 178.35 and 178.57) except as follows:

§ 178.57 (a) Type, size, service pressure and design service temperature.

(1) Type and size. Must be fusion welded. Water capacity must not exceed 4 pounds. However, the water capacity for the model C-10 must not exceed 25 pounds.

(2) Service pressure. May not be more than 100 psig.

(3) Design service temperature. Must be -320°F or colder.

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§ 178.57(d) Manufacture.

(4) \* \* \* add the heads for the model H-300 and H-850 liquid oxygen transport system cylinders are Torispherical.

(5) \* \* \* except sixth sentence is deleted and the fifth sentence is replaced with the following:

"The construction must be such that the total heat transfer, from the atmosphere at ambient temperature to the cylinder lading may not exceed 0.015 Btu per hour per °F temperature differential per pound of water capacity of the cylinder (models Companion C-1000, Companion T, C-500, C-550, and MARK 4 WALKER, MARK 5 WALKER, MARK 6 WALKER, MARK 7 WALKER, MARK T WALKER, EMT PORTABLE) or 0.200 Btu per hour per °F temperature differential per pound of water capacity of the cylinder (model H-300 or H-850), but not to exceed 2.0 pounds of evaporated liquid oxygen per day except for the model C-1000 which may not exceed 2.2 pounds of evaporated liquid oxygen per day".

§ 178.57(h) Openings in Cylinder.

(1) \* \* \* except a 3/16" diameter tube is authorized to be fusion welded or brazed directly to each head on model H-300 or H-850 cylinders. Brazing must be in accordance with Puritan Bennett procedure: Manual Brazing SPI 294 or SPI 387 accordingly on file with the OHMSPA.

§ 178.57 (p) Marking.

Applies except that each oxygen transport system must be marked "DOT-SP 9884" in letters 0.25 inches high on a contrasting background.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

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- b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modification or change is made to the package and it is offered for transportation in conformance with this special permit and the HMR.
  - c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
  - d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.
  - e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.
10. MODAL REQUIREMENTS:
- a. A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.
  - b. Drivers must have been instructed as to necessary safeguards and proper procedures in the event of unusual delay fire or accident.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, Parts 171-180.

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- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.



for William Schoonover  
Associate Administrator for Hazardous Materials Safety

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Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at

[http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm)

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PO: CWFreeman/SG